

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

February 1, 2006

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

Notes: Robin Harkless

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members.

Comments on Notes

No comments on the January 11 TMT notes were provided at this time.

Status of The Dalles Spill Bay Cable Replacement

Lance Helwig, COE, provided an update on work scheduled to replace wire ropes and drums in spill bays at The Dalles. A 2003 inspection found severed strands on wire ropes at bays 1-11 and bay 13. All exceeded the industry standard 'retirement criteria', and in 2005 reached a point, in danger of catastrophic failure, that they could no longer be used for normal operations. A temporary fix was provided: pendants were used to create a fixed opening at the bays needed to create 40% spill per the 2004 BiOp. 'Moderate success' was attained; as the season continued, it became more difficult to meet 40% spill.

A longer term fix is now being implemented. In December 2005, a contract was put out, funded jointly by BPA and the COE, to repair bays 1-9. Contractors are on schedule to replace wire ropes and drums at bays 1-6 and have them operable by April 4; and do replacement work for bays 7-9 and have them operable by May 15.

Question: How often are the gates adjusted? Daily, to maintain 40% spill. One issue arose with bay 6, where dewatering was a problem. The solution was to use pendant frames to jack up the gates and dewater the bay. It proved successful – the bay was dewatered on 1/31 and did not impact the schedule.

An update on the status of work at The Dalles will be shared at the 2/22 TMT meeting.

Status of B2 Corner Collector Pit Tag Program

Don Erickson, COE, reported that a PIT tag detection device will be installed in the flume of the B2 corner collector (B2CC) this spring. 30-35% of yearling and subyearling salmon, and 71% of steelhead use the corner collector to pass Bonneville dam, and nearly 100% of those fish survive. The PIT tag system is 15' x 15' and is a state of the art system. When the B2CC was originally designed in 1999 - 2000, technology was such that such a large system could not be designed. However, the engineers designed the B2CC with the knowledge that in the not too distant future technology would be

advanced enough to add such a system. Construction joints were designed and built into the B2CC so walls were easily removed to accommodate the PIT tag detection system this year. Don described the design of the system, an antenna array that lines the corner collector. His presentation can be found linked to today's TMT agenda. The COE required a detection efficiency of 60% of pit-tagged fish passing through the corner collector. Detection is impacted by location, orientation and collisions of the fish.

Schedule

- March 2: Open the CC for the Spring Creek hatchery release
- March 8: Install the antenna array
- April 10: Antenna array is operational
- April-August 2006: Operate the antenna array.

With new and bigger technology for the detection device, detection should improve. PIT tag technology has also improved. It was noted that the technology came along more quickly than was anticipated.

There will be an update on the status of the B2 corner collector PIT tag program at the 2/22 TMT meeting.

Spring Creek Hatchery Release

Dave Wills, USFWS, reported that marking of Spring Creek hatchery fish is going well, and is expected to be completed ahead of schedule, by 2/17. The fish are in the best condition they have been for a long time, and Dave encouraged folks to check out the facility. 7.5 million fish are being marked for the March release. A full flow bypass pit detector is being installed to detect fish bypassing the system when the hatchery program is not being implemented. They are on schedule for to release the fish on March 2, but installation of the bypass detector might require a 1-2 day delay. An SOR will be submitted as early as the next TMT meeting, 2/22.

Chum Update

TMT welcomed Rick Kruger, ODFW, as a new representative on the TMT. Rick reported that no new information on chum was available at today's meeting. ODFW will share a scale analysis (with distribution err, per request) when it has been completed. Cindy LeFleur, WDFW, reported that 49 adults were taken for hatchery supplementation.

Status of Litigation

The collaborative process continues. An ISAB review of the new COMPAS model was released last week. COMPAS was developed to replace the SYMPAS model, and incorporates seasonal change factors and in-river late mortality estimates. The ISAB review can be found on www.salmonrecovery.gov.

Water Management Plan

The action agencies are working on the 2006 WMP. The emergency protocols have been revised. The latest draft of the Fall/Winter update is on the TMT web page; TMT will

review the draft Fall/Winter update and come prepared to finalize this document at the 2/22 TMT meeting.

Operations Review

Reservoirs – Libby is at 2412.3', and 24' below the end of January flood control elevation established by the January final water supply forecast. Dworshak is at 1539.8', less than a foot below the end of January flood control elevation, 1540.7'. Outflows at the project have increased to target 1529.7' at the end of February. The February final water supply forecast is expected out in the next week. Albeni Falls is at 2055.4' Chief Joseph flow deflector work is scheduled to begin in February. Snake River flows are at 40 kcfs. Dredging on the Snake will be completed in February. The Willamette River is high, affecting tailwater elevations at Bonneville. Grand Coulee is at 1277.5'. Hungry Horse is at 3541'; the BOR ramped up discharges at Hungry Horse, to 5kcfs, based on their internal water supply forecast – discharges could go up further depending on the final forecast.

Fish – Nothing to report at this time.

Power system – The system is working to keep the Bonneville tailwater down.

Water quality – Nothing to report at this time.

TMT Meeting Schedule

TMT meetings are scheduled for February 22, March 8 and 22, and April 5 and 19. These dates are subject to change. Check the TMT web page for updates.

Wednesday, February 22 agenda items include:

- Chum Information Update
- WMP Fall/Winter Update
- Spring Creek Hatchery Release SOR
- Status of Bonneville Corner Collector and full flow bypass PIT tag detection system
- COE Flood Control Study Review
 - Cathy Hlebechuk emailed the link to the COE's draft 'Reconnaissance Report'; the comment period ends March 13
- Status of Lower Snake Dredging
- Status of The Dalles Spill Bay Work

Technical Management Team Meeting

February 1, 2006

1. Greetings and Introductions.

The February 1 meeting of the Technical Management Team was chaired by Cathy Hlebechuk and facilitated by Donna Silverberg, who welcomed everyone to today's meeting and led a round of introductions. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments should contact Hlebechuk at 503-808-3942.

2. Status of The Dalles Spillway Cable Replacement.

Lance Helwig briefed the TMT on the status of the Corps spill gate hoist wire rope replacement project at The Dalles Dam. Using a series of PowerPoint slides, he touched on the following topics:

Background – a 2003 inspection discovered that there were severed strands in the wire ropes in bays 1-11 and 13, all exceeding the industry standard retirement criteria. By 2005, the ropes had deteriorated further, to the point that they were in danger of catastrophic failure and could no longer be used for normal operations.

- In 2005, the Corps developed a temporary solution by using pendants to create fixed spill gate openings, in an effort to allow The Dalles to spill 40% as required by the 2004 BiOp. The operation was only moderately successful; it became more and more difficult to meet the 40% spill requirement as the season progressed.
- The Corps is now implementing a longer-term solution. In December 2005, the Corps and BPA issued a joint contract to repair Bays 1-9. The contractor is on schedule to replace the wire ropes and drums on Bays 1-6, and to have those spill bays operational, by April 4. Similar work is also proceeding on bays 7-9; these spill bays are scheduled to be operational by May 15.
- The Dalles Dam wire rope replacement – severed strands (photograph)
- Diagram showing the new jacking assembly, the pendant frames used in 2005, the pendants and spill gates
- Other photographs showing the new jacking assembly in action

There is one issue, said Helwig – part of this work included stoplog repair to allow dewatering. We were having some problems dewatering Bay 6. The way it works is that you stack 10 stoplogs on top of each other, then open the spillway gate. There is a “seeding head” on the stoplog seals; the contractor had to cut the wire ropes to get them out of there. The cables in bays 1-9 have been cut, which makes it rather difficult to lift the gates. We thought the contractor could pump it out, but he couldn't get the seeding head going. Last week, then, we went to our contingency plan, and went back to our roots – our pendant plates using four 150-ton jacks. The crew at The Dalles worked all weekend to get that built; on Tuesday morning, we jacked the gates up, and Bay 6 is now dewatered –

it worked beautifully, without impacting the contractor. We now know we have a process that will work on the other bays, Helwig said.

3. Status of Bonneville Corner Collector.

Don Erickson of the Corps led this presentation. He touched on the following topics:

- Bonneville 2 corner collector PIT-tag project: overview
- Purpose and goals: install a PIT-tag detector in the flume of the B2 corner collector. Goals include making this device reliable, cost-effective, maintainable and accurate.
- A joint project between the Corps and BPA
- Initial biological testing indicates that 30-35% of yearling and subyearling salmon and 71% of steelhead transit Bonneville 2nd powerhouse via the corner collector. Nearly 100% of the fish diverted by the corner collector survive. This is a high-priority project for regional fish managers.
- B2 corner collector: current design – a single antenna array with three pressurized air core antennas inside a waterproof composite structure. The array fits in a slotted concrete support structure and can be removed, repaired and replaced, if necessary.
- B2 corner collector and antenna array – cross-section
- B2 corner collector PIT-tag detection efficiency – required detection efficiency is 60% of PIT-tagged fish transiting the flume; efficiency is a function of location, orientation and collisions
- PIT-tag detection efficiency – lab testing results
- Photographs of the effects of recent flood events at Bonneville on PIT-tag detection array installation
- Photographs of antenna installation and use of non-metallic rebar
- Bonneville 2 corner collector installation schedule: open corner collector for Spring Creek hatchery release on March 2; install antenna array beginning March 8; antenna operational by April 8.

In response to a question, Erickson said the typical flow through the corner collector is 4.5 Kcfs-5 Kcfs. And the detection technology itself is better and more sensitive? Dan Spear asked. That's correct, Erickson replied. The tag technology itself has also improved – it's a combination, added David Wills. And are you thinking of installing another antenna to get more resolution in the middle of the channel? Hlebechuk asked. Possibly – we'll be looking closely at the results we get this spring and evaluating that, Erickson replied.

Why wasn't this detector installed when we originally built the corner collector? John Wellschlager asked. Because of doubts about the technology – we didn't think we could meet the 60% detection goal, Erickson replied. That's correct – the technology didn't exist at the time we were building the corner collector, but we knew it was coming. Lance Helwig explained the corner

collector was designed with construction joints to allow easy installation of the detector at a later date when technology had improved for the detector.

4. Spring Creek Hatchery Release.

We still don't have a formal SOR, said Wills, but fish marking is going very well. The crews are very good this year, and we expect to finish marking by February 17. The marking includes adipose fin-clipping all fish to be released and coded-wire tagging a subset of the release. The fish are in the best condition we've seen in a long time -- they are big and healthy. The hatchery is looking forward to the March 2 release date, he said. Wills encouraged anyone who may be interested to visit Spring Creek Hatchery to observe the marking process.

Basically, all of the raceways are full, Wills said; the April and May release groups won't be marked until the previous month's group is released. There are maximum density requirements we have to abide by, so everything is kind of linked together, he explained.

One other potential issue is the fact that people may or may not realize that the full-flow bypass PIT-tag detector is also being installed in the Bonneville bypass system, Wills said. Once that is installed, we'll be able to get detections even when there is no one in the juvenile facility. They are installing that now and have cut out a section of steel pipe to replace it with non-ferrous material. Until that full-flow pipe can be watered up, the screen cannot be installed and the juvenile facility cannot be used. The work is supposed to be complete by March 2, but I have been told that we may need to delay the March 2 release by a day or two, Wills said -- we'll keep our fingers crossed that everything comes together.

In response to a question, Wills said half of this year's Spring Creek brood will be released in March; the remaining half will be evenly split between the April and May release groups, each a progressively larger size at release. In response to another question, Hlebechuk said there are currently four units out of service at Bonneville, which means that powerhouse capacity at the project is somewhat constrained.

5. Chum.

There is little new to report on chum, said Rick Kruger; we're still working on our scale/age analysis for the 2005 run. There was a question about the error distribution around the population estimate, Wellschlager noted. I don't know what that is at the moment, Kruger replied -- I'll find out. One other question was how many chum were taken for the hatchery supplementation/direct adult planting program, said Cindy LeFleur; the answer to that question was 49 adults

in 2005. In response to another question from Hlebechuk, Kruger said the vast majority of returning chum are three- and four-year-olds. In response to another question, Kruger said the offspring of the huge 2002 chum spawning year would have returned as three-year-olds this fall; the four-year-olds from the 2002 brood year will be returning in the fall of 2006. And why was 2002 such a banner year? Wagner asked. In all likelihood, it had more to do with ocean conditions than it did with the chum themselves, Kruger replied, adding that, as soon as the scale/age data is available on the 2005 chum spawners, he will provide it to the TMT.

6. Status of Litigation.

The collaborative process is still underway, and the number of work groups grows every day, Tony Norris said – other than that, there is little to report on the litigation front. The new passage model, COMPAS, which will replace SYMPAS, is now available via the www.salmonrecovery.gov website, Russ Kiefer noted; one thing the model will be able to do is to take into account seasonal changes, such as the proportion of in-river vs. transported fish. The model also attempts to take into account delayed mortality among the various groups, Kiefer said. We're hoping that it will be a better model that will help us make better decisions, he added.

7. 2006 Water Management Plan.

Hlebechuk said she is currently working on the 2006 Water Management Plan and the 2006 Implementation Plan. The emergency protocols appendix has been updated. The fall/winter update is now in pretty good shape, and I would like to finalize it as soon as possible, Hlebechuk said. It was agreed to finalize the fall/winter update at the next TMT meeting. And are you still looking for agency comments on the fall/winter update? Kyle Dittmer asked. Yes – I would like to finalize it as soon as possible, Hlebechuk replied.

8. Operations Review.

Hlebechuk said Libby was at 2412.3 feet last night. Based on the January final forecast, we were 24 feet below the project's January 31 flood control elevation, she noted. Dworshak was at elevation 1539.8 last night, slightly below the project's January 31 flood control FC elevation. Dworshak outflows have been increased to target elevation 1529.7 feet by the end of February. The February final forecast will be available some time next week; we expect the Dworshak forecast to be about the same, and for the Libby forecast to go up, Hlebechuk said. Albeni Falls is at 2055.4 feet, currently. The Chief Joseph flow deflector work is expected to start later this month. With respect to the Snake River projects, river flow is about 40 Kcfs currently; the dredging work is supposed to be done by the end of February. As we've heard, they're working on the B2 corner collector; they have difficulty working when the tailwater elevation

is above 21 feet, as it is today due to high flows from the Willamette. The contractor has to stop work when the tailwater elevation hits 23 feet. The Willamette has been running hard all month, she said.

Tony Norris said the current elevation at Grand Coulee is 1277.5; Hungry Horse is at elevation 3541 feet. Discharge is being ramped up at Hungry Horse in response to Reclamation's most recent internal water supply forecast. Right now we're targeting 5 Kcfs outflow; once the final forecast water supply forecast comes out in the next week or so, we will likely increase outflow further, to 7 Kcfs-8 Kcfs. Powerhouse capacity at Hungry Horse is limited to 340 kW at Hungry Horse due to limited transmission capability.

With respect to fish, Wagner said there is little to report, currently. Wellschlager said the only power system issue of note is the effort to keep the tailwater elevation down at Bonneville to facilitate work on the corner collector.

Wills noted that there is now a draft recon report on the Corps' system flood control study available via the www.salmonrecovery.gov website; that is a very important report, he said, and any comments are due by February 13.

9. Next TMT Meeting Date.

The next Technical Management Team meeting was set for Wednesday, February 22. Meeting summary prepared by Jeff Kuechle, BPA contractor.

Technical Management Team Participant List February 1, 2006

Name	Affiliation
Donna Silverberg	Facilitation Team
Cathy Hlebechuk	COE
David Wills	USFWS
Russ Kiefer	IDFG
Laura Hamilton	COE
Paul Wagner	NOAA Fisheries
Tony Norris	USBR
Cindy LeFleur	WDFW
John Wellschlager	BPA
Kyle Dittmer	CRITFC

Robin Harkless	Facilitation Team
Dan Spear	BPA
Shane Scott	PPC
Tim Heizenrater	PPM
Tom Haymaker	PNGC
Rick Kruger	COE